

CHANGES TO THE CLAIMS

Amend Claims 1 and 29, cancel claims 11–28 and add claims 30–37, as follows.

1. (Currently Amended) A surveying system for generating a computer model of a physical site, the system comprising:

a survey measurement device for determining a location of a selected feature relative to the survey measurement device; and

a computer-aided drafting (CAD) module for modeling the physical site, the CAD module[[,]] including a CAD application program installed on a computer for receiving from the survey measurement device data related to the location of the selected feature[[,]] and for creating a corresponding object in the computer model, and a bidirectional communication interface between the CAD application program and the survey measurement device for communicating commands from the CAD application program to the survey measurement device and for communicating the data related to the location of the selected feature from the survey measurement device to the CAD application program.

2. (Original) The surveying system of claim 1, wherein the computer includes an interactive display for enabling the operator to interact with the model at the survey site and enabling the operator to control the survey measurement device by use of a graphical user interface associated with the CAD module.

3. (Original) The surveying system of claim 1, wherein the bidirectional communication interface includes a wireless link.

4. (Original) The surveying system of claim 1, wherein the bi-directional communication interface includes a cable link.
5. (Original) The surveying system of claim 1, wherein the survey measurement device comprises a total station.
6. (Original) The surveying system of claim 1, wherein the survey measurement device comprises a hand held laser measurement device.
7. (Original) The surveying system of claim 1, wherein the survey measurement device comprises a global positioning system based device.
8. (Original) The surveying system of claim 1, wherein the survey measurement device comprises a high definition scanner.
9. (Original) The surveying system of claim 1, wherein the location of the selected feature and the corresponding object are represented in two dimensions.
10. (Original) The surveying system of claim 1, wherein the location of the selected feature and the corresponding object are represented in three dimensions.
- 11-28. (Canceled).

29. (Currently Amended) A method of marking features at a site corresponding to objects in a computer model, the method comprising:

selecting, through interaction with a graphical user interface associated with a computer-aided drafting (CAD) module, an object in ~~[[a]] the~~ computer model of the site ~~pre-loaded into the CAD module~~, the object corresponding to a feature at the site;

transmitting real world coordinates of the feature from the CAD module to a survey measurement device;

commanding the survey measurement device to indicate a location of the feature;
and

marking the location.

30. (New) The surveying system of claim 1, wherein the CAD module includes a graphical user interface that enables a user to select an object identifier from a drop-down menu in the graphical user interface.

31. (New) The surveying system of claim 1, further comprising means for calculating error in measured feature locations.

32. (New) The surveying system of claim 1, wherein the CAD module further includes means for distributing the error amongst a plurality of measured feature locations.

33. (New) The surveying system of claim 1, wherein the CAD module includes means for creating layered models of the site and means for assigning attributes to the objects.

34. (New) The surveying system of claim 33, wherein the CAD module determines attributes of the object in accordance with predetermined object choices.

35. (New) The surveying system of claim 1, wherein the survey measurement device is robotically controlled and the CAD module sends a positioning command to the survey measurement device to cause the survey measurement device to measure the feature.

36. (New) The method of claim 29, further comprising loading the CAD module with a set of plans or CAD files for the site.

37. (New) The method of claim 36, further comprising setting up reference points at the site corresponding to reference objects in the computer model.